University News

Association of Indian Universities

KOTA OPEN UNIVERSITY, KOTA
Rawatbhata Road, Kota

Advertisement No. 1/96

Applications are invited for the undermentioned posts so as to reach this office on or before 16/8/96 in the prescribed form obtainable from the office of the Registrar, Kota Open University, Rawatbhata Road, Kota on production of Indian Postal Order of Rs. 11/- in favour of the Registrar or on cash payment (I P.O or Rs. 21/- If it is required by post) upto 9/8/96.

1. Director, Planning, Development Material   **1 Post (Un-reserved)**

Production and Distribution. (4500-7300)

ESSENTIAL QUALIFICATIONS AND EXPERIENCE:

A. Fifteen years experience in college or University as a teacher or administrator with experience in educational administration and planning.   **OR**
B. Comparable qualifications in research establishment and other institutions of higher learning.
    OR
C. At least Master's degree with fifteen years experience of higher administrative service of State or Centre in which at least three years of experience in education, development and planning.

DESIRABLE QUALIFICATIONS:-

A. Technical Experience of Printing Process (Offset and Hard Printing)
B. Preference will be given to person who has working experience of production and distribution of study material in distance educational institutions.

2. DIRECTOR, REGIONAL   1 Post   (Unreserved)
SERVICES (4500-7300)

ESSENTIAL QUALIFICATIONS AND EXPERIENCE:-

A. Fifteen years experience in college or University as teacher or administrator with experience in educational administration and planning.   **OR**
B. Comparable qualifications in research establishment and other institutions of higher learning.
    OR
C. At least Master's degree with fifteen years experience of higher administrative service of state or centre in which at least three years experience in education, development and planning.

DESIRABLE QUALIFICATIONS:-

A. Experience and qualifications relating to Distance Education.
B. Preference will be given to person who has experience of working in Regional Services units of distance of Educational institutions.

3. CONTROLLER OF   1 Post (Unreserved)
EXAMINATIONS (3200-4625)

ESSENTIAL QUALIFICATIONS AND EXPERIENCE:-

A. Ten years experience as a teacher or an administrator in a College or a University with experience in educational administration and Planning not below the rank of Asstt. Registrar
B. Five years experience should be in Examination section
    OR
C. At least Masters degree with ten years experience of Univer-

arty administration.   **OR**
D. Comparable qualification in research establishment and other institutions of higher learning.

DESIRABLE

Experience of University Administration and of Conducting University examinations and other allied work at the executive level.

4. Dy. REGISTRAR   **1- Post reserved for S.C.**
3 Posts   **Category.**
(3000-4500)   **1- Post reserved for S.T.**
                            Category.
                            1- Post for General Category.

ESSENTIAL QUALIFICATIONS AND EXPERIENCE:

A. Atleast a Second Class Post Graduate Degree, and
B. Atleast five years administrative experience in a position involving supervision, control and planning or atleast five years experience of Teaching at the University level with some knowledge and experience in Educational Research, planning and Administration.

DESIRABLE:

A. Familiarity with the life and working of University or with the educational administration in college, University or an institute of higher learning or research
B. Experience of Teaching in a College or a University
C. A degree or a diploma in Management and
D. Experience of University development planning and project work and familiarity with U.G.C. Scheme

Persons who possess a Bachelor's degree and are already working in the University as Asstt. Registrar atleast for four years possessing minimum total administrative experience of 10 years would be considered eligible for the post. Experience in the cadre of Section Officer or equivalent post and above will be counted as administrative experience

NOTE: **REGISTRAR**
TERMS AND CONDITIONS FOR APPLYING FOR ABOVE POSTS:
1. Retired persons need not apply. 2. In case of persons already in employment, their applications must be sent through proper channel 3. Candidates are required to apply separately for each post on prescribed form 4. Applications received on plain paper or after due date or without attested copies of marksheets, experience certificate, Caste certificates etc will not be entertained in any case 5. The University reserves the right to increase or decrease the number of posts. 6. The Selection Committee may relax any of the eligibility conditions in outstanding cases subject to the final approval of the Board of Management. 7. It is not obligatory on the part of the University to call every candidate for interview who possess the requisite qualifications. 8. Persons selected for the post applied for can be posted to any of the Centre of the University or any office thereof. 9. No T.A./D.A will be given for attending the interview if called for. 10 The candidates who had earlier applied for post No. 4 in response to our Advertisement No 13552 dated 27-12-95 need not apply afresh unless they want to update their bio-data

REGISTRAR

IN THIS ISSUE

Conceptional Connotations of Third Dimension of Higher Education

Ramlal Parikh*

Think Globally, Act Locally

The words 'Adult Education, Adult Literacy, Post-literacy, Continuing Education and Extension Work/programmes have been undergoing changes in response to enormous diversity of development processes.

The term 'Adult Education' connotes life-long learning in terms of duration indicating that school education or even higher education is not a terminal process. It also means that a life-long learning cannot be confined to traditional walled classrooms. It is a learning process beyond walls.

Education is not schooling as widely known, but it is 'Learning to Learn' as spelt out by International Commission of Education for *21st Century* set up by *21st Century*. This report chaired by Ms. Jacques Delors, comes after 20 years of Edgar Faure report of 'Learning to be'. The Delors' report prescribes four main pillars of education —

   i. Learning to know
  ii. Learning to do
 iii. Learning to be
 iv. Learning to live together

Shri Vinoba Bhave has described it in a more cryptic way by stating that Education or Learning meant Yoga (Self-discovery), Udyog (Productivity), Sahyog (Co-operation).

Development now connotes primacy of social development even as a pre-requisite of economic growth. There are four global movements in this context which make it imperative for education and more particularly, higher education.

  1. Education for All
  2. Health for All
  3. Work for All
  4. Food for All

The new global logo of development is sustainable development. This calls for a much more specific role of higher education through its extension programmes.

Extension work means not only extension of cognitive knowledge. It denotes promotion of learning avenues in the adjoining local community which will be mutually inter-linked with field programmes of all disciplines of studies. Through extension, relevant knowledge, skills and values are transmitted to the adopted community in an

*Chancellor, Gujarat Vidyapith, Ahmedabad-380 014.

adopted area. The area-based community approach is intended to make extension work specifically relevant to the people of all age groups of the adopted community. It is imperative, therefore, that extension programmes should be the outcome of scientific determination of learning needs of all age groups of all sectors of the community. The community education process which treats community a source of learning as well as its beneficiary is now needed to make extension programmes participatory so that people of the community feel a sense of partnership with the institutions of higher education.

Adult Literacy Programme denotes:

i. Imparting self-learning skills of literacy than mere limited skills of three R's;

ii. Sustaining literacy through post-literacy learning materials;

iii. Sustaining awareness about grassroot level development schemes of central and state government, local bodies and state sponsored corporation-agencies, like District Rural Development Agencies (DRDA) and Jawahar Rozgar Yojana etc; and

iv. Disseminating regularly like distance learning material on health & hygiene of the people.

Providing regular information on entrepreneurship procedure particularly fiscal lending arrangements for self-employment opportunities through various grassroot level vocations.

Organisation of opportunities to neo-literates for periodic self-testing of their knowledge and skills.

Promoting increasing enrolment and retention in Primary Education for class 1 to 7.

Helping drop-outs of primary schools to join the neo-literate learning process.

The Continuing Education denotes:

(1) Continuing literacy exercise for neo-literates through post-literacy programmes.

(2) Further education for secondary school students through distance learning modes, through non-formal ways.

(3) Supplementary education for high-school students and undergraduate students of colleges by supplementing contemporary knowledge on functional aspects of life.

(4) Dissemination of advanced knowledge in small capsules to students who have graduated in specialised subjects without resort to diploma or degree.

(5) Refresher courses of short duration on contemporary professional and vocational spheres on the pattern of Danish Folk Schools.

(6) Developing through distance education modes, knowledge capsules to reinforce and enrich the experiences of life.

(7) Continuous flow of value education on quality of life in terms of better citizenship, elevation of community life and cultural life and gender equity.

(8) Population education in its wider parameters of community education denotes life-long learning by using community as a source of learning by formulating project of making community education as a means of social change and social transformation. While education should enable one to perceive widest horizons of mind, it needs the practice of community education process to operationalise the width of horizon at the door-steps of local communities.

It is now almost 25 years since the UGC began its involvement. A chronological report of UGC's catalyst role in promoting adult education including adult literacy should be brought out.

Teachers in Higher Education and their Professional Development - II

M. S. Yadav*
S. K. Panda**

Programmes for Professional Development

The tradition in India, in the context of universities, has been to regard training of teachers in colleges and universities as unnecessary. Some sporadic efforts had been made in the sixties and seventies to initiate staff development before it got systematised in late eighties. In early sixties the University Grants Commission (UGC) had started a scheme of summer institutes in which teachers of different subjects were brought together under the guidance of competent professors and scholars to study the new dimensions of their disciplines. In a few colleges, special lecture courses were occasionally organised for the purpose. Some universities instituted special postgraduate diplomas to meet the training needs of teachers. These efforts had, however, only a marginal effect on the problem of training of teachers in the institutions of higher learning. The Education Commission (Kothari Commission) which was in session during 1964-66 took note of these efforts and their impact, and highlighted the urgent need for the introduction of more massive and imaginative measures (NCERT, 1971) The Education Commission suggested that every university and, where possible every college, should have regular orientation courses organised for a few weeks early in the session in which some new and some older teachers participate. The best teachers of the institution — as well as some distinguished teachers from outside — should discuss with them the outstanding problems of teaching, research and discipline as well as the mechanics of the profession. During such courses new teachers will be able to make social and academic contacts and find their feet in their new environment. The commission also suggested the possibility, in the bigger universities or a group of universities, of placing these activities on a permanent and continuing basis by establishing something like a staff college where teachers from all affiliated and constituent colleges as well as the university will be brought together for orientation, discussion, seminars, workshops, etc. Where this was not possible, it suggested, a conference centre would be necessary to facilitate discussion of issues which teachers have to face, e.g. objectives of education, methods of teaching, enrichment of subject-matter etc. Further, it suggested that the staff college or conference centre should also produce in cooperation with other members of the faculty, occasional brochures, booklets, guidance materials, etc of use to all teachers (NCERT, 1971).

Suggestions and recommendations made by the Education Commission regarding professional training of teachers in higher education became the guidelines to design programmes for professional growth of teachers in subsequent years. These recommendations found explicit mention in policy documents for educational developments in this regard from 1968 onwards (GOI, 1968; GOI, 1986a, GOI, 1986b; GOI, 1992a; GOI, 1992b).

In 1970, the UGC initiated a scheme to organise summer/short term institutes for the orientation of junior and fresh lecturers in methods of teaching. These institutes were conducted at various university centres in the country, viz. Baroda, Chandigarh, Indore, Meerut, Mysore and Vallabh Vidyanagar. The Maharashtra Government also initiated a similar scheme for lecturers of junior colleges (Singh, 1980).

Around the middle of seventies, Calicut (1975) and Annamalai (1977) Universities started pre-service programmes for college teachers. The former chose the nomenclature 'Master of College Teaching' (MCT) for its programmes whereas the latter preferred to call their programme 'Master of Higher Education' (MHEd). Both these programmes were of one year's duration. The candidates who possessed Master's degree in any discipline and were qualified for appointment as lecturers in the univer-

*Professor of Education, Centre of Advanced Studies in Education, M S University of Baroda,
Vadodara - 390 002.
**Director (Research), Association of Indian Universities,
New Delhi - 110002.

sities were eligible for admission to these programmes. Two other universities, viz. Bombay and Madras, started in 1972 and 1975 respectively regular programmes for teachers' orientation, and called them Diploma in Higher Education. The courses were essentially in-service programmes offered for working teachers. The Madras University had a few centres in the affiliated colleges also for conducting the course; one such centre was at Sri Rama Krishna Mission Vidyalaya, Coimbatore. The Madurai (later renamed as Madurai Kamaraj) University started in 1976 a certificate course to give professional orientation to the lecturers working in the affiliated colleges or in the departments of the university. The All India Association of Christian Higher Education (AIACHE) was one organisation to launch programmes of professional orientation as 'induction' to college teaching for the teachers in their colleges.

The M.S. University of Baroda instituted in 1975 an in-service programme to give professional orientation to its freshly appointed lecturers. During this orientation programme, the faculty members of the university discuss with freshly appointed lecturers problems of teaching, research and discipline as well as the mechanics of the profession. The programme has three components to cover various aspects. The three components are discussed at the following three levels with relative weightage as shown against each level :

a) Centre for Advanced Study in Education which is a constituent of the Faculty of Education and Psychology. — 40 per cent weightage

b) Respective departments of the participants — 40 per cent weightage

c) Respective faculty to which the participants belong — 20 per cent weightage

Each lecturer has to participate in the programme compulsorily as it is a condition to be fulfilled before he/she is confirmed. However, the programme is open to any other teacher of the university, if one wishes to participate.

Comparative studies of these pre-service and in-service courses run by different institutions were made by Singh (1980) and Yadav and Roy (1984). These studies provide relevant details about these courses, like professional components covered, organisational arrangements, administrative provi-

sions, procedural conditions and the mode of conducting those programmes.

The courses of professional orientation for teachers, both in-service and pre-service, started by these universities have since been discontinued except the one at the M.S. University of Baroda, which is conducted as an in-service programme of professional development for its own teachers. In order to put the discontinuance of the courses in proper context, it may be relevant here to make a few observations :

i) One, while these courses were being run by different universities, the views and perceptions about the content to be covered, modalities to conduct, and the weightage to be given at the time of appointment (if one had completed such a course), were sharply divided, though their relevance was by and large conceded to. During 1982-84, these issues were thoroughly examined by the National Commission on Teachers in Higher Education (NCT-II). The Commission recommended institution of professional courses for all teachers (lecturers) in universities and colleges. The courses were visualised as 'orientation courses' and 'refresher courses', both as in-service programmes. The orientation courses were intended to provide general professional orientation to teachers of all disciplines whereas the refresher courses were to be given in a discipline specific manner to enhance participants' knowledge in their disciplinary areas (GOI, 1984).

ii) Two, later a committee (popularly known as Mehrotra Committee) was appointed to consider the matters related to revision of pay scales of teachers in universities and colleges. The committee was formally asked to consider the recommendations made by the NCT-II in this regard inter-alia while considering the proposals for the revision of pay scales of teachers. The committee recommended the revision of pay scales which was made effective from 1986. Two of the several recommendations made by the committee are of special relevance here.

First, the programmes of professional development of teachers — orientation courses and refresher courses — were made an integral part of the scheme devised for the career

advancement of teachers. Any lecturer aspiring to move from the initial pay scale to the senior grade would complete an orientation course; and, similarly, to move from senior grade to the selection grade, which is equivalent to that of a Reader, one would complete two refresher courses.

Second, the responsibility of devising these courses for professional growth of teachers and their implementation was entrusted to the Indira Gandhi National Open University (IGNOU) which was established in 1985, just prior to the revision of pay scales (GOI, 1987).

However, in 1987-88, the UGC formulated a scheme of Academic Staff Colleges (ASCs) for organising orientation programmes for newly appointed lecturers and conducting refresher courses for in-service teachers. At present 45 ASCs are functioning in different universities. In 1988-89, the UGC also initiated a programme for identifying University Departments for conducting subject-oriented refresher courses for in-service teachers, and has identified 200 such departments for the purpose. Nearly, 13,000 teachers had attended orientation and refresher programmes in ASCs and university departments by 1992 as per details given in the *Programme of Action 1992* (GOI, 1992b).

In 1991, the IGNOU launched a 'Diploma in Higher Education' (DHE) (later renamed as PGDHE) with a view to provide necessary knowledge, understanding and skills pertaining to higher education to university and college teachers. Regular teachers in universities, colleges and other institutions of higher learning are eligible for admission to the DHE. Also eligible are those who possess a postgraduate or a professional degrees in any subject as per the requirements prescribed by the UGC and other agencies for recruitment of lecturers in institutions of higher learning. The course is conducted through the mode of distance education.

At present the academic opinion is more crystallised about the need and mode of implementation of professional training programmes. They are generally considered relevant and feasible for teachers in higher education on the lines adopted by ASCs for organising 'orientation' and 'refresher' courses. In this connection, however, it may be observed that slight variations also exist in India in some respect of curricular activities and organisa-

tional structures of these courses. For example, the University of Delhi chose to have, instead of ASC, a 'Centre for Professional Development in Higher Education', the idea being to have a wider scope for devising relevant inputs and introduce them for teachers' professional growth even if they are not explicitly mentioned in the curricular outlines developed by the UGC for ASCs. Similarly, the M.S. University of Baroda preferred to continue with professional orientation programme for its own teachers, which was evolved and implemented (since 1975-76), long before the ASCs were established in 1987. This course gives a scope to evolve a programme in an institution specific manner, an idea originally advanced by the Education Commission (1964-66) that every university and wherever possible each college should have regular orientation courses for new teachers (NCERT, 1971).

In respect of organisation of ASCs, the Jawaharlal Nehru University (JNU) presents a variation. No full-time Director of the ASC is appointed separately. Instead, one of the Professors in its Schools or Units is appointed by JNU as Director of ASC for a specified period. This offers greater scope for trying out initiatives of varied academic leadership styles for evolving a programme. These variations have positive points to offer. They may help in trying out different inputs and identify more suitable ones. For evolving appropriate organisational structures also, it is better if alternative ways are tried and evolved. Also, the course offered by IGNOU to working teachers in institutions of higher learning may be accredited and accounted for career advancement purposes. (At present the PGDHE is equivalent to attending two orientation programmes of UGC.) However, we are of the view that the course need not be offered to candidates other than working teachers even if they possess requisite qualifications for being appointed as teachers in institutions of higher learning.

Current Scenario

The programmes for professional development of teachers discussed here mainly concern those functions of teachers which they perform in teaching situations — helping students to learn, whereas there are many other programmes and opportunities that are necessary to ensure professional development of teachers. A cursory view of such aspects of the endeavour towards professional development of teachers in the Indian context is presented as follows :

i) Revision of pay-scales of teachers in 1973 and later in 1986 has established apparent parity of teaching profession with other service groups. Implementation of uniform pay scales for teachers in universities and colleges has considerably enhanced the prestige of teaching profession. In fact, in 1986, when pay scales for teachers were revised, an additional cadre of 'UGC Professor' was included, whose status in terms of pay etc was visualised as equivalent to that of a Secretary in the union ministries. Also, this action has brought teaching community and their functions and obligations into sharper focus to be examined at all India level. This has been a significant step towards seeing teaching as a large profession and paying attention to developing it on professional lines for effective roles.

ii) The National Commission on Teachers in Higher Education took a comprehensive view of teaching profession and deliberated upon various aspects of work by teachers — expectations from them, their functions, involvement with community, values to be inculcated, programmes and opportunities for professional development, role of professional associations, professional ethics and code of conduct, service conditions, facilities needed for functioning, administrative and managerial components, etc. These deliberations served as relevant inputs to further contribute to thinking in matters related to policy formulation. More importantly such efforts are needed to keep the process of discourse on education as continuing and enriching.

iii) In order to provide opportunities for continuing education of teachers, there are forums like seminars and conferences at regional, national and international levels in which teachers can participate. Such participation is facilitated by several organisations at state and central levels; these organisations provide financial support to teachers for participation in seminars, conferences and other professional forums.

Similarly, various types of leave are available to teachers which provide free time for such activities as doing studies, reflecting, creating, developing, preparing critiques, producing instructional inputs, conducting research — both in disciplinary areas as well as in peda-

gogical aspects related to respective disciplines etc. Provisions of leave — academic, study, sabbatical, privilege, earned, special casual leave etc, which exist in many universities, provide requisite leisure to teachers for actualising their potential for scholarly, creative, and professionally superior work.

Also, the programmes like Faculty Improvement Programme (FIP) and Quality Improvement Programme (QIP) available for university and college teaches offer them opportunities for their professional development through continuing education. Separate centres and units have also been established in recent past in institutions of higher learning for professional growth of their teachers.

iv) Various types of fellowships like Visiting Fellowship, Visiting Professorship, Visiting Associateship, Senior Fellowship, Associateship, Guest Fellowship, National Fellowship, Nomination for National Lecturers, etc are also available to teachers. These schemes are intended primarily to offer opportunities to teachers to think, reflect, interact and consolidate one's ideas and for conceptualisation. Also, through these programmes, the range of interactions among teachers gets enlarged which may help in generating discourse on education and thereby lead to professional advancement of teachers individually and also collectively.

v) With regard to professional development of teachers in terms of research competence, it may be mentioned that financial support is traditionally available to teachers individually and in teams for carrying out research in their disciplinary areas. The number of institutions which offer this support and the kind of research for which it is available, is increasing gradually. For instance, financial support is available to teachers from several funding agencies not only for research in their disciplinary knowledge domains but also for doing research of various other kinds, viz. research on pedagogical aspects; to develop instructional materials and other inputs, systematisation of evaluation procedures, evaluation of an educational innovation or a programme; and carrying out research project related to community work, etc. These research studies

are supported for teachers of all disciplines. The main gain of extending support to such research studies is that they help professional advancement of teachers in respect of varied functions they are expected to perform. To promote this idea of bringing varied functions of teachers under systematic research and development activities, some universities allow doctoral studies to be pursued by teachers of all disciplines with regard to pedagogical aspects and extension work in the community.

For more comprehensive understanding, combined perspectives of two or more disciplines have become cognitive necessity in certain areas of studies. In certain others it arises out of social demands to relate disciplinary knowledge with work, programme of action or solving actual problems of life and living. To meet these challenges effectively teachers have to be provided with opportunities to interact among themselves more often and in more focused manner. In the recent past opportunities have been there for teachers of different disciplines to interact among themselves for developing interdisciplinary thinking and planning interdisciplinary research on themes of common interest. Programmes like 'interdisciplinary forum' initiated by UGC, are aimed at this kind of professional development of teachers. Further, such orientation has been consciously promoted at the interdisciplinary research units in social sciences, sciences and humanities at University of Pune.

vi) Another way in which professional development of teachers is attempted to be achieved is holding eligibility tests for recruitment of teachers in universities and colleges. The UGC initiated in 1986 a nationwide test called 'National Eligibility Test' (NET) to screen candidates for appointment as lecturers in universities and colleges. Those who qualify in the NET are declared eligible for appointment. The UGC has advised universities to consider qualification in NET as requisite qualificat - ion. Some universities have already introduced this qualification as a condition for appointment. Similar tests are being introduced at state level. Maharashtra has introduced State Eligibility Test (SET) for screening the candidates for appointment as lecturers. Such tests are useful for ensuring professional standard for new entrants into the profession. This is a very significant input for the overall development of the teaching profession itself.

Other programmes to facilitate the entry of qualified candidates as teachers are 'Pools of Scientists' maintained by the national agencies like Council of Scientific and Industrial Research (CSIR), the scheme of scientists of the UGC, etc. These programmes not only facilitate induction of professionally competent persons into the teaching profession but also support their professional development by promoting independent research and development activities by them.

vii) The role of professional associations at university, state and national levels has been not only visualised by teachers for the promotion of their dignity and rights but also recognised by policy framers for ensuring proper professional conduct of teachers. Policy documents like *National Policy on Education 1986* (modifications undertaken in 1992) and *Programme of Action 1992* have made explicit mention of directions to concertise these roles. The NCT-II explicated the role of teachers' associations for devising ways and means to develop teachers professionally as a collectivity and enforce professional ethics on them (*GOI, 1984*).

When the revision of pay-scales was effected in 1986, the Government of India Resolution on the matter assigned to UGC specific responsibility to evolve proper code of conduct for the teachers through cooperation of and in collaboration with teachers' professional organisations like the All India Federation of University and College Teachers Organisations (AIFUCTO).

viii) An allied aspect of professional development is that of the credibility of the institutions of higher learning as centres of excellence and the quality of programmes they offer. The quality of programmes, and their credibility are obvious indicators of teachers' level of performance. These can be largely attributed to teachers' initiative individually and collectively. In this context the *NPE, 1986* made a specific recommendation: "Excellence of institutions of higher education is a function of many aspects: self-evaluation and self-improvement are important if a mechanism is set

up which will encourage self-assessment in institutions and also assessment and accreditation by a council..... The quality process, participation, achievements etc, will be constantly monitored and improved" (GOI, 1986a). Towards this end, the National Assessment and Accreditation Council (NAAC) has been established in 1994. The role of the NAAC will be *inter alia* encouraging and helping the institutions in developing their procedures, techniques and modalities for self-evaluation; and initiate research studies on the process of assessment and accreditation so as to evolve appropriate criteria, their application to various institutes of higher education, and to understand the interdependence of socio-demographic factors.

The process of assessment is proposed to be guided by rigorous self-examination so as to understand one's own (i.e. institutions') merits and limitations. The external evaluation by peers and practitioners of academics is to help measure its (institution's) own performance. It is not to be compared with other institutions or among the teaching units, if the accreditation is expected to improve the quality of education (NAAC, 1994). This, of course, assumes: one, teachers' own initiative for improving their performance; and two, the availability of necessary support — material and academic — to teachers to do so.

Conclusion

From this discussion of the programmes for professional development of teachers in higher education, that are in vogue in the country, one may tend to conclude that : the need for professional development of teachers is recognised; various functions of teachers are examined for this purpose; appropriate measures are devised and implemented to ensure teachers' professional growth; and necessary mechanisms are created to assess and monitor it. However, considering the size of teachers' group throughout the country, the large variety of institutions in terms of their quality, the complexity of the situation due to varied conditions under which they work, the availability of facilities to teachers for professional growth and many other problems — academic and organisational, what is presenting challenges are matters related to their adequacy, operational feasibility, modalities of implementation and such other problems.

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Open University and Library
Concept and Relationship

Dinesh Kumar Gupta*
S.L. Jain**

Education is a life long process. It is imparted both in the formal and the informal manner. Whereas formal education has fixed goals, limited to classroom with readymade reading material in the form of text-books, the scope of informal education is unlimited. It has neither beginning nor an end. It is not tied up with time, place or person, because it is incidental in nature.

The new system of education, comparatively of recent origin, comprises both the formal and informal systems. In context of formal education, it has a syllabus, a time table, and a conscious efforts on the part of both giver and taker. At the same time, it is informal so long as it is not restricted to a particular age group, has no fixed entry point, can be moulded to the needs and convenience of the learner. It provides educational opportunities to the students irrespective of the geographical boundaries, caste, creed, sex, economic and social status, and age, based on distance education technology. The open university is well known distance education technology. The open university is well known as an institution specialising in distance education[1]. It provides educational opportunites to those students who are unable to secure admission to the college or university due to lack of finance and other domestic pressures and also to those who wish to update their knowledge in specialised area. The salient features of Open Universities are[2]:

— They, like their conventional counterparts, are autonomous bodies and they are free to take their own decisions and formulate their courses.

— They use multimedia for instructional purposes — electronic media is an important component.

— There are strong student support services.

— The reading material is prepared by a team of experts.

— Entry qualifications are flexible and relaxed.

— One can study according to one's place and convenience.

— There is uniformity in the quality of education, i.e. students have access to quality education.

Open university uses modern communication technologies for expanding frontiers of higher education. The university adopts multimedia approach for imparting education. The materials for teaching through open universities are :

— Print based material (books, journals, study material, assignments, reading lists and notes designed to accompany radio, television, satellite based programmes),

— Audio based materials (broadcast on All India Radio and audio casettes),

— Video based materials (broadcast on television, video casettes, etc),

— Computer based; computer assisted learning programmes.

Role of Library in Open University

Open university education has been described more as a process of learning than as a process of teaching, signifying self efforts to be put in by the students. Thus students in open university education are to be provided with the facilities necessary for mastering the subject matter, technical skills, habits of thought and methods of work in their thrust area. Printed study material alone will not provide all the opportunities needed for attaining the complex objectives.

The library has a prominent role to play in attaining objectives of the open universities. In formal education library is described as 'heart of educational system'; in open university it is even more so. The library system caters on-campus teaching

*Asstt. Professor, Dept. of Library & Information Sc. Kota Open University, Kota (Raj)
**Sir Padampat Research Centre, Jaykaynagar, Kota (Raj).

community as well as learners residing in remote areas and learners having different economic, social and educational background. Not only that, it has to acquire, organise and disseminate information in the form of print material as well as non-print material. Describing role of library in open university education, Penland[3] asserts as "there has already occured an increasing acceptance of non-academic programmes, such as the "university without walls' as approved avenues to personal improvement, degrees, diplomas. Such activities have placed new responsibilities upon libraries and lead to their further involvement in providing both print and non-print media resources and services to meet them".

Highlighting the impact of multimedia, Taylor[4] observed that "A second major impact on libraries will result from the broadening of the communication spectrum from print to sound to image ...... The capability to transmit non-print forms by video or audio channels opens up, for libraries, a whole new spectrum of services, systems and functions". Thus in open university education the role of the library extends in preparing study packages by the authors, editors, translators, etc; to supporting intermediataries (counsellors/tutors or supporting staff) in completion of learning packages successfully for the self learning of the students.

To provide library and information services to distant learners, open universities have a network of libraries. Open universities have two distinct categories of libraries

— The central Library at the apex at the university headquarters, and

— The libraries at study and regional centres.

The Central Library is meant to cater the needs of academic and administrative staff of the university. The editors, writers, educational technologists, counsellors/tutors, etc may also make use of the library. The main functions of the Central Library include :

— to select and acquire valuable book and non-book material for central library and the libraries of the regional and study centres;

— to provide quick and easy access to information from its database in support of teaching, research and service programmes;

— to aid faculty members to structure, revise and update curriculum;

— to provide information services in making instructional programmes of the university a success;

— to provide training to the library staff working at Central Library, and at the study and regional centre libraries;

— to coordinate activities of the libraries at study and regional centres and make liaison with public libraries, academic libraries and special libraries in order to provide library and information services at distant and remote places; and

— to provide guidelines for libraries of study and regional centres for their smooth functioning.

To enable the students to have regular contact with the university, study centres are opened in different parts of state/country. The main function of the study centres is to organise and maintain support services to the students in their learning pursuits. This service is the backbone of the open university system and used for minimising gap between the learners and instructions. The study centres have provisions for libraries housed with radio, television, audio-visuals, study materials, etc. The library has an important role in student support services as Bakshish Singh[5] writes "by virtue of the independent learning concept of distant education system, library facilities should occupy a prominent role in the students learning process and forms an essential part of support services." In fulfilling this duty library has to perform the following tasks.

— To motivate all category of learners to get benefit from open learning — the most suitable form of imparting education to them;

— To inform learners regarding educational opportunities through open university, its educational programmes and components of each programme;

— To make information available regarding tools and sources, learning packages in print and non-print form;

— To assist learners to make the effective use of library services available to them;

— To share resources with other agencies involved in educational guidance; and

— To support counsellors/tutors in successfully completion of counselling/tutoring sessions.

Indian Scene

Open universities functioning in India are as follows :

— Dr. B.R. Ambedkar Open University (1982)
— Indira Gandhi National Open University (1982)
— Kota Open University (1987)
— Yashwant Rao Chavan Maharashtra Open University (1989)

The states of Bihar, Gujarat and Madhya Pradesh have also started open universities. Library facilities in some of these universities are described in the following sections.

IGNOU has a network of 16 regional centres and 220 study centres throughout the country. The Central Library, located at its headquarters has the primary responsibility to provide library services and information support to the University as a whole. Libraries attached to regional centres and study centres are meant primarily to cater to students' needs, though staff also makes use of the resources. The Central Library has the dual responsibility of developing collection of books and non-book materials for the central library as well as regional libraries and libraries of study centres. The technical processing facilities are also provided by the Central Library to the libraries located at regional and study centres to ensure consistency and standardisation[6]. The Library has been fully computerised and has linkage with DELNET for resource sharing. The students and counsellors can use information resources available at study centres.

The Kota Open University functions through a network of 6 regional centres and 26 study centres situated at colleges in various cities. The Library situated at its headquarters has raised a good collection comprising study material of different open universities, textbooks, reference books, journals, audio and visual cassetts, microform literature, etc. The services include loan of print and non-print material, study facility, photocopying facility, etc. A computer has also been installed to provide automated information services. Libraries at regional centres and study centres receive books and non-book material through the Central Library or Directorate of Regional Services. No standard norms have been laid down for smooth functioning of these libraries. The library at the study centres is managed by the part-time librarian/asst. librarian of the college where the centre is located.

The Andhra Pradesh Open University functions through a network of 87 study centres[7]. The Central library is the apex library at the University's headquarters, which acquires books and other reading material in multiple copies for the central library as well as study centre libraries[8]. The information sources can be used by the students at the study centre itself. So, the study centres are in one way providing some of the important services of a library and identical to any academic library with the exception of circulation services and counselling, etc. The University also has attempted opening book corners in public libraries. It has one such in the Eluru Public Library[9].

However, the emphasis given to library support facilities is not sufficient. The libraries at regional and study centres are unable to cater to many students due to several constraints, such as study centres are housed in the existing colleges, and the books are placed in closed almirhas to prevent losses[10]. Only study material of the academic programmes are issued to the counsellors/tutors for once and all time till they hold the position. Sometimes, even academic counsellors do not appear to regard the library as a necessary support service[11]. In the absence of proper liaison between library of the study centre and college library and due to lack of professional devotion, proper services are not being provided. Learners residing in remote areas and geographically away from study centres are losers in absence of postal delivery system and non-existence of proper liaison with public libraries. The central libraries have also not initiated any guidelines or framework for smooth functioning of the study centre libraries.

A study on Open University library system highlights the following problems[12].

— The meagre budget allotment poses a threat to the very existence of the study centre libraries;
— The holdings of libraries are insufficient to meet users requirements;
— Periodicals subscribed to are very few and need to be increased;
— Physical facilities are not available;
— Users need better access to the resources of the library and improvement of services offered;
— Audio-visual materials in the study centres are not sufficient;
— Book lending services are not available;
— Staff of the study centre libraries are less cooperative.

Personality Factors as Predictors of Academic Achievement in Engineering Courses

Ramana Sood*

It is the age of science and technology. Great emphasis is being laid on the scientific and technological development as progress of a nation depends to a large extent, on the scientific and technological development. After independence, massive expansion of technical education has taken place in our country. From 1949-50 to 1958-59, the number of engineering colleges in India increased from 23 to 55. The growth rate increased at the rate 9.2 per cent per annum during the period 1975-76 to 1982-83 (from 108 in 1975 to 200 in 1982-83). In 1960, there were 75 technical institutions with an intake capacity of 10,000 students which in 1994 had increased to 400 institutions with an intake capacity of 70,000 undergraduate and 10,000 postgraduate students.

The enrolment in 1964-65 for engineering courses was 78,114 whereas in 1958-59 it was 31,707. During the period 1963 to 1983, the enrolment in the engineering courses increased 2.6 times from 43,000 to 112,000 students. In 1989-90, the enrolment in engineering/technology was 2,09, 371 and in 1993-94 it increased to 2,45,322. Seetha Ram points out that the total stock of engineers in 1947 was about 18,000. Today, we produce that number in less than a year.

The foregoing data shows that there is a quantitative improvement in technological education, but it should not conceal the reality that there is a general decline in the quality. The quality of education is of crucial significance. As the Education Commission pointed out that if higher education is not radically improved, our administration and technical progress, our intellectual standards and our social advancement will all be most seriously handicapped.

With the expansion of colleges and enrolment, the educational cost has also increased tremendously during the past few decades. The public sector outlay on education was Rs. 133.00 crore in the first five-year plan and now in the eighth five-year plan (1992-97) it is Rs. 21,319.02 crore. Added to it is the wastage in the form of failures, pointing to the plight of the state of education in our country. A developing country, like ours, cannot afford this wastage.

This calls for some measures to streamline, the methods of selecting students to ensure high academic achievement. Thus, the real problem admitting the right kind of students in professional colleges. The common practice is to use the examination marks as the sole criterion for selection/admission. There is, however, little justification for it. Examination marks and entrance tests are unreliable for measuring the real attainment. Other non-intellectual factors, like personality traits, also count.

A review of related literature reveals that not only the intelligence but also other non-intellectual factors affect the success of professional students. Sinha conducted a study on professional groups of doctors, engineers and college teachers from Delhi population. The personality factors of engineers in rank order were conscientious, more intelligent, controlled, self-sufficient and venturesome. Pradhan conducted a study on eleven faculties to examine the academic performance and job placement of students going out of the university after six months of the completion of course, and found that the employment position was better among the products of engineering and medicine than other courses.

This study was planned to find out which personality factors would optimally predict the academic achievement of the engineering students.

Objectives

1. To identify a combination of personality factors which would optimally predict the academic achievement of engineering students;

2. To find out the significant differences in personality traits of high and low achievers in engineering courses.

Assumptions

1. Multiple regression equation can be drawn be-

*Department of Education, Kurukshetra University, Kurukshetra-132 119 (Haryana).

tween personality trait scores and academic achievement in engineering course;

2. Personality factors can predict academic achievement in the engineering courses;

3. There exist significant differences in the personality traits of high achievers and low achievers.

Methodology

A limited sample of 200 final-year engineering students from five engineering colleges, i.e. 43 from Regional Engineering College, Kurukshetra; 29 from Technological Institute of Textiles, Bhiwani; 25 from Punjab Engineering College, Chandigarh; 52 from Thapar Institute of Engineering & Technology, Patiala; & 51 from Guru Nanak Engineering College, Ludhiana was drawn out randomly. The following tools were used for data collection:

a) Cattell's 16 PF Form-A was used to assess the personality, and

b) Total marks obtained in all the years of the professional course were taken as the academic

achievement of the students.

Results and Discussion

(A) Product Moment Coefficient of Correlation was used for working out the correlation coefficients between academic achievement scores and each of the personality factors (*Table 1*).

Product moment coefficient of correlation between academic achievement and personality factors B, G and N are found to be positive and significant in the engineering course. This means that high intelligence, higher superego strength and social awareness lead to an increase in the academic achievement of an engineering student.

(B) Regression equation was calculated by Wherry Dodittle method to identify the combination of personality factors which would optimally predict the academic achievement of engineering students. The best suited contribution of personality factors to the criterion academic achievement with their individual amount of contribution are given in Table 2.

Table 1. **Product Moment Coefficient of Correlation between Academic Achievement and Personality Factors of Engineering Students**

(N=200)

Personality factors	Name of the factor	'r'	Significance
1. Reserved vs Outgoing	'A'	.00	NS
2. Less Intelligent vs More Intelligent	'B'	.16*	Sig
3. Lower ego strength vs Higher ego strength	'C'	.11	NS
4. Humble vs Assertive	'E'	−.02	NS
5. Sober vs. Happy-go-lucky	'F'	−.04	NS
6. Expedient, weaker superego strength vs Conscientious, higher superego strength	'G'	.15*	Sig
7. Shy vs Venturesome	'H'	.05	NS
8. Tough vs Tender-minded	'I'	−.03	NS
9. Trusting vs Suspicious	'L'	.04	NS
10. Practical Prexernia vs Imaginative, Autia	'M'	−.13	NS
11. Artlessness, socially clumsy vs Shrewd, socially aware	'N'	.17*	Sig
12. Untroubled vs Troubled	'O'	−.11	NS
13. Conservatism of temperament vs Radicalism	Q_1	−.08	NS
14. Group dependent, group adherence vs Self sufficient	Q_2	−.10	NS
15. Undisciplined vs Controlled	Q_3	.08	NS
16. Relaxed vs Tense	Q_4	.01	NS

Table 2. Prediction of Academic Achievement on the basis of a combination of Cattell's Sixteen Personality Factors.

Variable No.	Personality Factor	β	b	r	βxr	Individual variance %
11.	Artlessness vs Shrewdness (N)	.166	.702	.172	.029	2.90
2.	Low intelligence vs High intelligence (B)	.161	.678	.160	.024	2.40
14.	Group adherence vs Self sufficiency (Q$_2$)	−.101	−.441	−.095	.010	1.00
10.	Praxernia vs Autia (M)	−.099	−.067	−.129	.013	1.30 ˙
13.	Conservatism of temperament vs Radicalism (Q$_1$)	−.087	−.425	−.079	.007	0.70
				R^2 =	.0830	8.30%

R = .2881   Corrected R = .2534
Regression equation in standard score form:

$$\overline{Z}_c = .166Z_{11} + .151Z_2 - .101Z_{14} - .099Z_{10} - .087Z_{13}$$

Regression equation in score form:

$$\overline{X}_c = .702X_{11} + .678X_2 - .441X_{14} - .067X_{10} - .425X_{13} + 11.427$$

The regression equation shows that for every unit increase in scores on Personality Factors of artlessness vs shrewdness (N) and low intelligence vs high intelligence (B), the academic achievement score of an engineering student increases by .702 and .678 scores respectively. For every unit increase in the scores on Personalty Factors of group adherence vs self sufficiency (Q$_2$), praxernia vs autia (M) and conservatism of temperament vs radicalism (Q$_1$), the academic achievement score of an engi-

neering student decreased by .441, .067 and .425 scores respectively.

The multiple correlation of academic achievement and five personality factors, i.e. shrewdness (N), high intelligence (B), group adherence (Q$_2$), praxernia (M) and conservatism of temperament (Q$_1$) of engineering student is .253 which is positive and significant at .05 level. The value of R^2 = .0830, which indicates that 8.30% of variance in academic achievement scores of the engineering students is accounted for by these five personality factors.

(C) Significance of difference in marks of high and low academic achievers was calculated by 't' test (Table 3). There were 20 failures or having reappear. A similar number was drawn out randomly from the pass students to compare the personality patterns of high and low achievers.

Table 3. Comparison of High and Low Academic Achievers on 16 PF in case of engineering students

df=38

Personality factors	High achievers N= 20		Low achievers N = 20		t	Significance
	Mean	SD	Mean	SD		
1. Reserved vs Outgoing	A	9.40	2.25	9.55	3.46	.16
2. Less intelligent vs More intelligent	B	7.20	1.99	7.75	2.62	.73
3. Lower ego strength vs Higher ego strength	C	11.90	3.21	14.80	3.08	2.84 at .01 level
4. Humble vs Assertive	E	13.25	1.76	13.95	3.98	.70
5. Sober vs Happy-go-lucky	F	12.65	3.40	13.20	3.79	.47
6. Expedient, weaker superego strength vs Conscientious, higher superego strength	G	12.35	1.74	13.00	3.08	.80
7. Shy vs Venturesome	H	13.95	3.09	15.80	3.70	1.67
8. Though vs Tender-minded	I	9.45	2.31	10.00	2.49	.71

9. Trusting vs Suspicious	L	9.15	2.10	8.70	2.22	.64	
10. Practical, prexernia vs Imaginative, autia	M	10.40	3.18	11.00	3.92	.52	
11. Artlessness, socially clumsy vs Shrewd, socially aware	N	10.45	2.16	10.45	3.11	.00	
12. Untroubled vs Troubled	O	12.45	3.50	10.85	3.07	1.50	
13. Conservatism of temperament vs Radicalism	Q_1	8.15	1.62	9.35	2.01	2.03	at .05 level
14. Group dependent, group adherence vs self sufficient	Q_2	10.65	2.94	· 9.70	2.57	1.06	
15. Undisciplined vs Controlled	Q_3	11.55	2.62	11.90	3.33	.36	
16. Relaxed vs Tense	Q_4	11.90	2.79	10.55	2.84	.49	

't' test showed that low achievers have higher ego strength (C) and radical (Q_1) than the high academic achievers.

Conclusion and Discussion

The results show that engineering students are intelligent, conscientious and have stronger superego strength which leads to high achievement. Cattell described that the factor (G) — Expedient vs Conscientious — correlates positively with school and general achievement.

The results also reveal that in engineering, shrewdness (N) increases the academic achievement. It may be possible that the impact of modern education has made engineering students calculating, polished, socially aware and having a liking for other people. In the modern society, they are moving away from simplicity, contentedness with what comes and trust in accepted values. Indirectly, the results of the present study can be supported in the light of the results of the studies of Shennon (1947), Sealy and Cattell (1966), Gopal (1974) and Sinha (1980).

In engineering courses, shrewdness predicts achievement. This may be possible because the engineering students have to work in social interest, that is why they are socially aware and have an exact calculating mind. Other factor, Group adherence (Q_2) predicts achievement. It may be possible that the engineers work within the group as they work with junior engineers, workers, etc. Thus, so many officers work together. This may lead to group dependency of engineers. Engineering students are conservative (Q_1). The reason for this may be that the engineering students pick up the habit and trait of analysing the results of previous work, like benefits and drawbacks of planned construction work.

They are tolerant of traditional ideas. Studies of Gopal (1974) and Sinha (1980) also revealed similarly personality characteristics.

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Dharma Prabhu Kempegowda

M.N. Usha*

It was a strange coincidence when I found an old man — 60 + — at the post office despatching books to Kannada University at Hampi, Karnataka. I asked him whether he had written and published the book. He replied in the negative but, with a broad smile, he said, his wife was the authoress of the book and it was to be despatched for review.

I took interest in the book, collected one copy from him as a compliment and started reading it.

I was highly impressed by the cover which had blue background with Kempegowda in front who had been portrayed as a great warrior. The title also appealed to me as it was *Dharma Prabhu Kempegowda* (Kannada) (Chandrika Prakashan, Bangalore. Pp. 100. Rs. 40/-) Below which was author's name, Kakolu Saroja Rao. It was her 50th book, Silver Jubilee publication, in the memory of late Kakulu Ananth Rao memorial series.

Foreward has been written by Sri Suryanath Kamath who is a great historian and editor for *Karnataka State Gazetteer*. In a brief narration he has given the first of the stories of Kempegowda. It is described in a nutshell and has its style of conveying the message about the book.

This motivates me to read the book in detail.

Saroja Rao mentions that the book is a brief historical presentation of life of Kempegowda who was pious, brave, idealistic in his views, a builder of Avathi Empire and Bangalore. This is followed by photographs of Kempegowda, Kempegowda's daughter-in-law's tomb at Koramangala, Kempegowda Tower at Gavipura Fort Anjaneya; Ruins of Fort, Lord Ganesh (a skill) located at Basvangudi Road, Drum at Gaviganga Dhareshwara Temple. These photographs taken from Archeological museum at Bangalore have been clearly printed.

The book has an introduction depicting the life of Kempegowda and his major contributions to the nation. Thereafter Kempegowda's life history is presented in a simple language but in an effective manner. Language is Kannada which is neither too old/ancient but also not modern in touch. It has been

made simple for readers of all ages.

It became my favourite book due to three reasons :

1. It was written in simple Kannada.

2. It was a life sketch of a great historic character of Karnataka who was builder of Bangalore which has emerged as a metropolitan city (area).

3. Though of only 100 pages, it covers entire stretch of history of Avathi and its contribution to Vijayanagar empire along with the life sketch of Kempegowda from his birth to death (1569) covering at least 45 years period in a beautiful manner.

This depicts the potential of a women novelist who has been accorded due place in Kannada Literature.

This work indeed is an effort made by a woman singly which is lightly appreciable. The moment I started reading the book felt as though I lived with the socio cultural settings in which the whole story of Kempegowda has been narrated. I could not but complete the book leaving aside all my other work. I read the book twice and even thrice but was thrilled to preview the thoughts on Kempegowda.

Also I felt proud that I live in city built by Kempegowda, about which a clean narration has been persecuted by Saroja Rao.

There is something unusual and unique about the book which makes it charming. I am short of words to describe or express the inner feeling one gets when he/she reads it. For me it is a favourite book as it has created a deep impression on my mind. The other things which are mentioned about the book are its presentation of events which would rather appeal to a common man instead of a historical investigator. It has portrayed Kempegowda as a common man with human managerial skills and at the same time as a leader who can lead the masses to a good cause.

The selected episodes of life of Kempegowda which has been briefly presented by the authoress shows her innate ability to make the readers understand the capabilities of Kempegowda as a boy, a youth and as an adult. This life span comprising

*32, 6th Cross Road, Malleswaram, Bangalore-560 003.

childhood, adolescence and adulthood appealed to me as it is part and parcel of every man born on this earth and is filled with occurrences — happy and unhappy. This however remains different for Kempegowda as he is even trained to be a leader as has been highlighted by Saroja Rao. In her style of writing she has given clues as to how parents can have fore thought to develop leadership skills among children. The personality development of a child depends not only on the environmental factors surrounding the child but also parental attitude toward the development of a child.

The other feature which impressed me is the way the authoress takes the reader through the Journey of Life of Kempegowda as a builder of Town called "Bendakalur" and its fort. (It still exists near city market, Bangalore). More than anything else, Saroja Rao has tackled the issues related to Mother-Child, Husband-Wife, King-Minister, Teacher-Pupil very well. Her handling the human linkages, inter and intrapersonal relationships webbed around Kempegowda is fine.

The true traits of Kempegowda are clearly reflected the way Saroja Rao states incidents which can be quoted thus :

Mugilanu mutallu parvatha bayasuvudhilave, parvathavanu kandu asuye....

Manushyana pravruthiyu beleyuthadhe aashe mugiletharavadadhu adanu sandisalu avanu anusarisabekadha reethi vethyasa vagiruthathashte shatruvanu manisidhamela avananu kshamisuvudhu rajana dharma.

In the last two pages Saroja Rao describes the administrative efficiency of Kempegowda. She also mentions social welfare measures that were implemented for the uplift of the poor.

The logistics of the army have been discussed in depth by the authoress. In general she has respected the historical perspective of the administration during the regime of Kempegowda.

While concluding Saroja Rao pays great tribute to Kempegowda for his religious bent of mind, gorageous moves and harmony and peace loving king.

She thus calls Kempegowda as a "Dharma Prabhu". As a native of Bangalore I always felt great about Kempegowda who built Bangalore. Naturally, a biography of him holds utmost appeal for me.

Open University and Library

Conclusion

A greater responsibility lies on the library system for effective delivery of education through open universities. The libraries involved in the system should be well equipped with facilities like satellite communication, computer network, audio and visual facilities, standard text and reference books, journals, etc. The open university library system comprising the central library located at its headquarters, academic libraries, public libraries and special libraries may fulfil information needs of the learners residing in remote areas by extending information resources and services in the best way. Hence, there is an urgent need to link open university libraries with the INFLIBNET for making open university concept a success.

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WOMEN'S EQUALITY

Dr. (Miss) Mira Seth, the then Member, Planning Commission, Govt. of India, delivered the Convocation Address at the annual convocation of the Banasthali Vidyapith (Deemed University). She said, "Parliamentary legislation has been an instrument of giving equality and status to women in our country and this has taken the place of the ancient Vedic, Pauranic, Shastra and Smriti injunctions. Our Parliament has enacted sixteen laws from the Hindu Marriage Act, 1955 to the Commission of Sati (Prevention) Act, 1987 for giving legal sanction to this principle of equality." Excerpts

I feel that as Indian women, we can be proud of our great cultural heritage and the position that Indian society had given us from the earliest times. Historical and archaeological evidence exists right from Mohenjodaro and Harappan civilisations. I would like to give only one example from this period that of a dancing girl found in the excavations of Mohenjodaro now available in the National Museum. The dancer stands absolutely confident, poised and contained within herself, which shows that she is not a timid product of suppression or repression. The town planning architecture of Harappan culture also gives importanc to domestic dwellings where women reigned supreme.

Before the arrival of Aryans in India, like the ancient civilisation of Mesopotamia, Sumeria and Egypt, women were venerated in our country as fertility goddesses. Man had not yet discovered the secret of birth which was considered a divine miracle and hence the homage to women. In early Vedic age, the Aryans paid homage to divinity represented by powerful elements in nature. Hence the worship of *Surya* (Sun) and of *Usha* or dawn, which was the female aspect of divinity. In the Pauranic period, the veneration for women is epitomised through the fact that most of the important goals of life had to be achieved through paying obeisance to female divinities. The goal of achieving prosperity, which for some was the most important aim of life was to be achieved through Laksmi, the goddess of prosperity and the consort of Visnu. The divinity responsible for imparting knowledge was Saraswati. The destroyer of evil and the nurturer good was Durga, consort of Siva. Nowhere in the history of any culture in this world, exists the beautiful concept of *Purusa* and *Prakruti* which became the male and female elements of creation, with women representing creation through their Shakti. The male element of *Purusa* was supposed to be passive. So *prakriti*, the female element was the creative and nurturing aspect. The concept of *Ardhangini* represented by *Ardhanareeswara*, combining male and female in the same physical body, again is indicative of the status of equality of women alongwith men. We must not forget that in Indian Hindu mythology, most gods were worshipped along with their wives.

History is full of examples of learned women in ancient Indian history like Lopamudra, Visvavara, Sikata Nivavan and Ghosha. Brahmavadinis pursued scholarship for the rest of their lives. They have written Vedic hymns. During Buddhist times, women were again the recipients of higher education and had the right to join nunneries alongwith their sisters believing in the Jain tradition. Women throughout the medieval and later medieval period continued to receive higher education to have political influence, both in Muslim and Hindu kingdoms, and had economic empowerment through estates bestowed on them by their husbands and by their parents.

Many evils crept up in Indian society like early marriage for the girls, *sati* and dowry. Right up to the beginning of the Twentieth Century, they were not, by any stretch of imagination, universal. Such cases were so few that in the totality of the population, they did not represent a significant sector of population believing in them. Many reformist movements like the Brahmo Samaj, and great men like Vidya Sagar and Raja Ram Mohun Roy advocated education for girls, marriage after adolescence and the right to widow remarriage. A movement was also started all over the country, including Rajasthan, for banning the giving of dowries for girls.

The Independence movement in our country gave a great importance to the reformist movement as women joined the struggle for Independence in large numbers and the western educated leadership of the Congress Party supported their right for equality. As early as 1936, in the State of Madras, women had got the right to vote. Women's Right

to Property Act was passed in 1929. The Constitution passed in 1950 gave concrete expression to this equality of sexes through Articles 15, 16 and 39 which gave legal sanction for equality as well as authorising the State to take affirmative action in favour of women.

Parliamentary legislation has been an instrument of giving equality and status to women in our country and this has taken the place of the ancient Vedic, Pauranic, Shastra and Smriti injunctions. Our Parliament has enacted sixteen laws from the Hindu Marriage Act, 1955 to the Commission of Sati (Prevention) Act, 1987 for giving legal sanction to this principle of equality.

In the development processes and the Five Year Plans of our country, they give emphasis to the instrument of education as one of the major tools for empowering women. The focus on educational planning for women has shifted from their traditional role as housewives and mothers to nontraditional roles as producers, partners and partakers in the national development.

In education, although India still possesses the largest number of illiterate women in the world, we have made a significant dent in female literacy rate. It has gone up in the Twentieth Century from 0.60% according to 1901 Census to 39.29% as represented by the Census of 1991. The male-female gender gap in literacy is also narrowing down although, the gap is still significant. The enrolment ratios in primary education have also gone up from 24.8 in 1950-51 to 92.5 in 1994-95. The dropout rate for girls in primary education has decreased from 62.5% in 1980-81 to 39.1% in 1993-94.

What is significant, however, is that the percentage of girls going up from primary education to the completion of higher secondary education shows very high dropout rates. These rates available for 1993-94 indicate the dropouts up to Class-V as 39.05% and the percentage of girls dropping out up to Class-VIII as 56.78 and up to high school, it is 74.54%. This is indicative of the fact that there is tremendous wastage of girls from the primary to the middle level and from the middle to the higher secondary level. The total literacy mission, representing a national movement on adult literacy, is helping to bridge the gap in male-female literacy, as women constitute 66% of its total beneficiaries.

In higher education, only 12% of the total enrolment represented women in 1950-51. In 1993-94, 33.2% students enrolled in universities were women. The enrolment of women per hundred men also rose from 14 to 50 during this period. The number of universities and girls colleges has expanded but only 5% of girls and 13% of boys in the age group of 18 and above were enrolled in higher education during the 1980's as compared to 28% girls and 32% boys in most developed countries.

The faculty-wise distribution of enrolment of women in higher education shows a large number of women opting for general Arts (55%), followed by Sciences (20%), Commerce (14%), Education (4%) and 7% in the Faculties of Engineering, Technology, Medicine, Agriculture, etc. However, in Engineering and Technology,

the enrolment was only 1.2 per cent and in Agriculture 0.3%. Compared to this, less men were in Arts (33.4%) and more in Sciences (19.4%), Commerce (25.9%), and 23% in Engineering, Technology, Medicine and Law. To sum up, despite some clear-cut gains of women's participation in higher education, a big gender gap still exists.

The question of women's employment through education is very important. The rates of educated unemployed as indicated by NSS Rounds indicate a high percentage of women who have received higher education but are unemployed. In 1977-78, it was 41.9% compared to male 11.8%. In 1983, it was 26.4% compared to male 9.6% and in the latest NSS Round of 1987-88, female educated unemployed was 27% compared to male 9.9%. It clearly shows that there is a gender bias against women in employment. The information available in live register of Employment Exchanges for June, 1992 (the latest figure available) indicates that 5.4 million women were educated job seekers. These figures relate to matric and above. The preponderance of job seekers in this category came from Arts courses, followed by Education, Science and Commerce.

In the sphere of health, what is most worrying, is the continuing preference for the birth of a son. This is showing a decline in the sex-ratio from 975 women per thousand men in 1901 to 927 women per thousand men in the latest Census. The under-five mortality rate, although higher for females, shows the male-female gap narrowing down. The area in which women's health has benefited most, is the rise in their life expectancy from 23.96 years

in 1901 to 31.66 years in 1951 to 59.10 years in the latest Census. Women have benefited immensely from the national primary health infrastructure, safe motherhood and immunisation programmes of the Government.

Women's economic empowerment is also taking place as shown in the rise in the work participation rates from 14.2% in 1971 to 22.3% in 1991. Their share in organised sector has increased to 14% in 1991. Women in Government account for about 13.6% but in administrative services, their share comes to between 7%

to 10%. It is, however, to be emphasised that most of the women in our country are employed as agricultural labourers, in handicrafts, handlooms, sericulture, coir, domestic services, mostly in low paid jobs and as casual labourers.

Three major initiatives have been taken by the Government for the economic empowerment of women. The first is the setting up of the Rashtriya Mahila Kosh — a National Credit Fund for Women — set up in 1993 — to empower poor and assetless women in the informal sector through extending credit and thrift. It has assisted over 87,000 women since its inception. The Mahila Samridhi Yojana was operationalised in 1993 to promote the habit of saving with incentives from the Government and with attractive rates of interest through the network of Post Offices. One crore and 39 lakh accounts totalling a value of Rs 143 crores have been set up under the scheme. The Indira Mahila Yojana has also been launched in 1995, which aims at an integrated development of women through convergence of all sectoral programmes through, a nodal agency at the village level to empower women. Women have been given their due share in the rural development programmes of IRDP, JRY, TRYSEM and DWCRA, which have been universalised in most districts of the country. A trend to encourage joint Patta ownership of property, land and other assets by both men and women has also caught on in some States of the country.

Women's political empowerment has been much slower than that of some disadvantaged groups in our country. The percentage of women representatives in the State Assemblies is higher than that of women in the National Parliament. In the First Lok Sabha (1952-57), women constituted 4.81% of all the Members, whereas the present Lok Sabha (1991-96) has 7.69% female Members. The Panchayati Raj Act, 1993 is very revolutionary in its concept and has resulted in recognising women's contribution to local self government at the grassroot level by giving them 30% representation in the Village Panchayats, Panchayat Samitis and Zilla Parishads throughout the country. This has thrown up 7 lakh women Panches, Sarpanches and Chairmen of Panchayat bodies in the area of local government and would for the first time in our history give large number of women participation in the political and administrative processes for the development of the country where it affects their lives most intimately. A National Commission for Women was also set up in 1992 to act as a lobby for women's issues.

Women have achieved legal equality but the number of crimes against women, whether due to better reporting or due to social evils getting accentuated through a large degree of internal migration and the existence of parallel illegal economy, is showing a steady increase. The Police administration has taken steps to set up Crime Cells in various parts of the Country meant specially for the women. Voluntary organisations are also engaged in a big way in helping prevention of crime, but society and Government have to do a great deal more to eradicate the evils represented through crime.

We have a great responsibility as women to ensure a better world for ourselves. In this connection, you should all ensure that the birth of girl child to you, to anyone in your family or friends, neighbourhood and community in which you live should be welcomed as birth of Laksmi or Saraswati. You will condemn anybody going in for amniocentesis for getting rid of female children before they are born. Equal nutrition and maternal care would be given to girl children. Every girl who comes within your environment will be motivated through her parents for education up to the highest level that the child deserves. The health of adolescent girl would be looked after and the age of marriage postponed to the legal limit in order to fully prepare her for motherhood. We would all help in ensuring that dowries are not asked by us and the community in which we live, and the only purpose of marriage is association and friendship between two families for the pursuit of *Dharma, Artha, Kama and Moksha*. You would raise your voice against all crimes against women and not participate actively or passively in the perpetration of such crimes. You have a right to work for self-actualisation but wherever you are located in the employment world, you will ensure gender equity in selection, employment and development of women. We have a responsibility to keep our environment clean to protect our ecology and to reduce pollution and man-made destruction, both physical and mental.

University-Industry Interaction

To further University-Industry interaction in the leather, chemicals, ceramics and textiles sectors, Dr. (Ms) Kunthala Jayaraman, Dean of Technology, Anna University, proposes to seek ideas from industrialists on their requirements from the University. Encouraging these departments to overcome their obsolescence and meet the challenges of providing technologies and 'employable' students to these industries would be the guiding factor in equipping the departments, Dr. Jayaraman said in Madras recently.

Corporate support to academic bodies which was both imperative and of mutual benefit to universities and industries, would also go a long way in improving the present standing of Indian technology in the global scenario. Moreover, industries would find it difficult to meet their future requirements if the present hiatus between universities and industries was not bridged, she said.

'If industrialists can contribute at least one per cent of their turnover' to upgrade the infrastructure of academic institutions, the problems faced by universities in turning out employable graduates could be overcome comfortably, said Dr. Jayaraman who proposed to initially build up a corpus of Rs. 25 crores from industries, after which a matching grant could be availed of from Governmental and other sources.

The main purpose of corporate funding would be to set up chairs in the various disciplines vested with the Dean of Technology — on the lines of those in Universities abroad. There was adequate scope for setting up at least 10 chairs in each department and this would enable industrialists as well as academicians to realise mutual requirements, she added.

For instance, if a particular industry makes it clear to the University that it wold need students conforming to its specific requirements, then the final year course could be restructured to meet the requirements of the industry. It was also proposed to offer a course on patents for students who were so inclined.

Leather, ceramics, chemicals and textiles being crucial players in foreign trade, technology provided for these industries would have to be upgraded substantially and suggestions from the respective industries, especially the active involvement of the research and development personnel, would be vital to universities, she said.

The main impediments to research and development in the industries, according to the Dean, could be traced to the Universities which had 'obsolete' technologies and 'inadequate' infrastructure. Compounding this situation was the present trend of the increasing demand for seats in technology institutions, with more students opting for such courses, she pointed out. In this regard, the emergence of private institutions which provided such education was a welcome step. With regard to technical education in Tamil Nadu, Dr. Jayaraman observed that the quality of students entering the courses from all socio-economic streams was of the highest order.

With such a strong qualitative base of students, unless industry came forward and expressed its requirements to universities, there could be a flight of students initially to overseas employers, after which the domestic industry would have to pay considerably higher remuneration to lure them back, she pointed out.

Information Technology for Scientific Research

"Any institute in any part of the country can be on a par with any leading institution in the world in terms of access to information if the advancement of information technology is properly utilised," according to Dr. D. Balasubramanian, Director, Centre for Cellular and Molecular Biology, Hyderabad. He was speaking on 'Information Technology for Scientific Research in India,' under the auspices of the Ranganathan Centre for Information Studies (RCIS) in Madras recently.

The interesting fact, he said, was that while it did not need big investment to achieve this utility, it helped researchers to have access to the latest information on any subject. Among other utilities, it would also help them to avoid the laborious process of review of literature. In fact, at an investment of about Rs. 5 to 6 lakhs, which was not more than

the price of a car, even a small college could 'leap-frog' into the status of a leading international institution. Dr. Balasubramanian said just by using E-mail alone one could download enormous amount of information, which brought people and thoughts together while moving across borders and minds. He was delivering the third annual lecture of RCIS.

At present there was a wide disparity in terms of facilities for scientific research within the country and even the same town. Information technology could bring all the institutes together and help sharing facilities out of a common pool. Development of information technology also required libraries to handle information, resulting in a term called 'informatics'. Libraries should hence add on the facility to handle information.

But there are some issues of concern to India like whether the scientific literature produced by the West in E-mail, including the mainstream literature, would be as expensive or more than the print version. The country needed to develop and define universal codes and standards and language compatible systems. Most importantly, it needed guaranteed infrastructure for the smooth running of systems.

The Government had to play a constructive role by strengthening infrastructure, promulgating regulations, cost sharing, allocation of bandwidths and satellite facility and, bridging of perception difference between administration and technology user.

Speaking on the occasion, Mr. C. Subramaniam, former Maharashtra Governor, said in view of

the emerging multi-disciplinary nature of science and technology, all the institutes should come together for a united approach towards research and development (R and D) in which the country was lagging behind. In this respect, information technology was going to be relevant as it could network the institutions. With a little more investment, many of these institutes could be 'earners and exporters of science and technology.'

Dr. M.S. Swaminathan, agricultural scientist, said the infrastructural conditions in the country were very poor and needed to be improved.

Programme in Molecular Biology

A 12-day laboratory workshop, the 6th Contact Programme in Molecular Biology, sponsored by the Department of Science & Technology, Govt. of India, New Delhi, was recently inaugurated at Zoology Department of B.H.U.

Prof. S.C. Lakhotia, the organizer of this programme, in his introductory remarks, said that Molecular Genetics and Recombinant DNA techniques had global importance today. Accordingly almost all universities in India had introduced teaching courses in these areas, either as part of the traditional course in Zoology, Botany, Biochemistry, etc or as full-fledged courses like Biotechnology, Molecular Biology or Genetics. Unfortunately, however, very few Universities in India provided adequate laboratory facilities for the students to learn the real methodologies through lab work. At best, the students got some theoretical exposure. However, without a direct lab experi-

ence, the theoretical knowledge remained largely incomplete and did not prepare the student well for future. It was in view of this need that DST supported such programmes where students of M.Sc. classes from different universities could spend some days in better equipped departments and get exposed to current laboratory methodologies. DST's Contact Programmes, he said, were unique since these were exclusively for those who were still studying in M.Sc. classes. The Contact programmes were expected to provide an opportunity to the participants to learn of recent developments in the field and to develop "contacts" with well established research labs so that they became better equipped to select their research fields once they had completed M.Sc.

The Cytogenetics labs in the department of Zoology of B.H.U. are well known for research in conventional Genetics, Cytogenetics (including human cytogenetics) and Molecular Genetics. DST has, therefore, supported the organization of such programmes at BHU every summer so that the facilities and expertise of this group are shared with students from all over India. During the past five programmes, Prof. Lakhotia said that more than 70 students had been trained in a whole spectrum of genetic, cytogenetic and advanced molecular biological techniques.

Prof. Hari Gautam, Vice-Chancellor, in his inaugural address, spoke of the high ideals of the great founder of this University and emphasized that this was an unique institution in global context. While welcoming the participants, he said that this was a national university which was

open to people from all over India not only for studies but also for faculty positions and encouraged them to work hard to compete for a position in this great academic institution. While welcoming Mr. T.K. Mandal, Principal Scientific Officer of DST, the Vice-Chancellor appealed to DST to provide maximum support for more such programmes at B.H.U. so that the great potential of this University was fully exploited. He assured DST that the faculty members would rise to the challenge provided by the funding bodies and would fully justify the faith reposed in them.

Shri T.K. Mandal gave an outline of the various activities of the Department of Science & Technology in promoting Science & Technology in the country. He also explained the various opportunities provided by DST for the young scientists. He emphasized that there was no dearth of monetary support for quality science but quality programmes were needed to take full advantage of the support available.

CSIR to Self-finance R&D

"CSIR in 2001 would be a model organisation for Scientific Industrial Research and path-setter in the shifting paradigm of self-financing R & D," said Dr. R.A. Mashelkar, Director General, CSIR, in New Delhi recently.

The CSIR Chief, who is also the Secretary, Department for Industrial and Scientific Research, said the Indian industry had to undergo a basic attitudinal change and stop imagining that economic liberalisation would automatically lead to accessibility to international technology.

The industry would have to

adopt stringent international norms of environment through essentially indigenous innovations, he added.

Strongly recommending the involvement of university brainbanks to revamp the country's scientific set-up, Dr Mashelkar suggested the creation of a brand name for Indian R & D to lure both local talent as well as international involvement.

"A little commercialisation and market orientation and R & D will go a long way to release the entrepreneur for the development of industry while filtering out dedicated scientists for fundamental research," Dr Mashelkar said.

Dr Mashelkar felt a little disappointed that R & D had so far been left primarily to the public sector — space, defence and atomic energy. Statistics showed, he said that only 5 per cent of the industrial production in the country was based on indigenous technology, whereas 45 per cent was adopted and the remaining 50 per cent imported.

Yet, he reasoned that people were gradually beginning to realise that markets were not the only instruments of growth, rather it was technology which would play the pivotal role in the growth and development of the country.

New Courses for GNDU Colleges

In its pursuit to vacationalization of education in universities and colleges at the First Degree Level, the University Grants Commission (UGC) has accorded its approval to Guru Nanak Dev University (GNDU) for starting various vacational courses in

P.C.M. S.D.College for Women, Jalandhar, Doaba College, Jalandhar, Govt. College, Gurdaspur, S.S.M. College, Dina Nagar (Gurdaspur) and BBK. DAV College for Women, Amritsar, in existing B.A./B.Sc./B.Com scheme from the academic session 1996-97. According to Mr. Darshan Singh, Dean, College Development Council of the University, S.D. College for Women, Jalandhar and Govt. College, Gurdaspur have been allowed to start the new courses in Office Management and Secretarial Assistance. Doaba College, Jalandhar has been given a new course of Industrial Chemistry (Seven Stream) while S.S.M. College, Dina Nagar (Gurdaspur) has been permitted to start the new course in Computer Applications and BBK DAV College for Women, Amritsar has been granted the approval to start the course in Tourism and Travel Management.

UGC will extend full financial support for five years only i.e. 1996-2000 in respect of equipment, teaching staff, Library books and additional space by way of alteration/modification of the existing space.

COL Support for Open University System

Prof. G. Dhanarajan, President of the Commonwealth of Learning (COL), Vancouver, Canada envisaged that COL would be taking an active role in strengthening the Open Education System in countries and regions within Commonwealth where it was not operational at present. He was addressing the faculty and staff on his first visit to Dr. B.R. Ambedkar Open University in Hyderabad recently.

Prof. Dhanarajan said that COL was a facilitator of Open University System in the Commonwealth Countries. He visualised that a day would come when a student from any of the Commonwealth Countries could take courses from any other Commonwealth Open University staying right at his home. He said in future 60 per cent of the funding of COL would come from non-governmental organisations unlike at present.

"The COL has been approaching various funding organisations in pursuit of generation of funds. Till now only five Commonwealth Countries have been behind the COL. But now Australia, New Zealand, South Africa have indicated their willingness to contribute funds to COL", Prof. Dhanarajan said.

Prof. R.V.R. Chandrasekhara Rao, Director, Asian Programmes, COL and former Vice-Chancellor, BRAOU, in his presidential remarks, said that Dr. B.R. Ambedkar Open University was a pioneer in the distance education field in this country and he was glad that it still retained its premier status.

On this occasion, Prof. Dhanarajan also released the first two volumes of collected works of Prof. G. Ram Reddy, edited by Prof. K. Murali Manohar, Professor of Public Administration, BRAOU.

Micro-film of Andhra Patrica

The Telugu University Library has acquired a "Micro-film" of Andhra Patrica (Telugu daily), covering the period 1914-1940 (26 years), from the Nehru Memorial Museum & Library, New Delhi.

The film is a rare source of information, useful to scholars, researchers, students, and journalists, etc for reference.

The significant roles played by the 'Andhra Patrica' at the time of National Movement and Andhra Movement are remarkable. Its contributions towards socio-economic development, literary activity and promotion, protection of human values and prompting oneness to the making of a better, enlightened society and national development, are of invaluable and remained as immortal.

S&T Education for Women

Sri Padmavati Mahila Visvavidyalayam, Tirupati, is organising a 3-day National Seminar on 'Science and Technology Education for Women beyond 2000 A.D.', on 25-27 July, 1996. Sponsored by the All India Council for Technical Education and University Grants Commission, the proposed seminar will focus on various issues influencing the participation of women in Science and Technology, with the aim of finding the ways and means for promoting their representation in these important areas. Some of the issues to be discussed at the seminar are : the state of the art of women's participation in science and technology, factors influencing the choice of professional careers for women, identification of areas in science and technology where women's participation could be promoted, strategies for strengthening women's participation in science and technical education, development of women resource for career advancement in science and technology. The resource persons and participants for this seminar will comprise eminent academicians, administrators, academic planners and educationists from universities and scientific institutions all over India.

Aryabhatta Awards

Dr. A.P.J. Abdul Kalam, Scientific Adviser to the Prime Minister, and Mr N. Pant, Member, Space Commission, have been selected for the prestigious Aryabhatta Awards for 1994 and 1995 respectively, for their outstanding lifetime contribution to the promotion of astronautics in the country.

The award, announced recently by the Astronautical Society of India, carries a citation and Rs 50,000 in cash.

News from Agricultural Universities

DoB Project for HAU

The Department of Biotechnology, Ministry of Science and Technology, Government of India, has sanctioned a research project worth Rs. 26 lacs to the Veterinary Parasitology Department of Chaudhary Charan Singh Haryana Agricultural University (CCSHAU). This was revealed by Dr. D.P. Banerjee, Professor and Head, who is also the Principal Investigator of this project. He said that the Parasitology Department had done pioneering work on immunisation of cattle against different diseases. Under this project research work pertaining to purification, isolation, charac-

terisation and standardisation of protective antigens prepared from tick diseases would be taken up to finalise a strategy for control of ticks and tick borne diseases.

Dr. Banerjee said that ticks transmit many fatal diseases in livestock of which theileriosis, babesiosis and anaplasmosis were important ones. These diseases were posing a serious threat to the livestock and had become a bottleneck in the implementation of Intensive Care Development Programmes, he added.

News from UGC

Countrywide Classroom Programme

Between 1st to 14 th August, 1996 the following schedule of telecast on higher education through INSAT-ID under the auspices of the University Grants Commission will be observed. The programme is presented in two sets of one hour duration each every day from 6.00 a.m. to 7.00 a.m. and 1.00 p.m. to 2.00 p.m. The programme is available on the TV Network throughout the country.

Ist Transmission
6.00 a.m. to 7.00 a.m.

1.8.96

"Searching New Frontiers : Optical Glass"

"Adult Education - A Point of View"

"Literature in Society Renaissance: A Conversation"

3.8.96

"Simply on Symphony"

"Research in Political Science : Interviews"

"Moth Bean - Drought Tolerant Crop"

4.8.96

"Towards Cleaner and Greener Environment - Part I"

"Living with Health: Treatment and prevention of Car-diovascular Disease"

"The Week Ahead"

6.8.96

"Bio-Medical Engineering"

"The Miraculous Cosmos of the Brain-An Organ"

8.8.96

"Career Counselling-Computer Science - Part I"

"Geo: How the Earth Came Into Being"

10.8.96

"Growing Buds.....smiling Petals "

"Puppetry-Part I: For Play"

11.8.96

"Towards Cleaner and Greener Environment - Part II"

"Living with Health: Communicable Disease"

"The Week Ahead"

13.8.96

"Bookfare-Part XII"

"The Miraculous Cosmos of the Brain : Pleasure and Pain"

IInd Transmission
1.00 p.m. to 2.00 p.m.

1.8.96

"Algorithms"

"The Discovery of X-rays: 100 years on Germany"

"A Story Inside the Shell"

2.8.96

"Mean Value Theorems: Continuity and Differentiability of a Function - Part I"

"Human Rights and Indian Constitution: A Discussion-Part I"

"Flanders"

3.8.96

"WANGLA; A Film on a Garo Festival"

"When Mosquitos go for a Swim"

4.8.96

No Telecast

5.8.96

"The Week Ahead"

"The Human Development Paradigm for South Asia Part - I (Lecture by Dr. Mahbub-Ul-Haq)"

"Gottingen — World Currents"

6.8.96

"Understanding Hydrocarbons"

"Developing Inter-Personal Relationship Through Communication-I"

"Living with Health: Treatment and Prevention of Cardiovascular Disease"

7.8.96

"Bookfare - Part XII"

"An Interview with Bhatnagar Awardee"

8.8.96

"New Horizons-32"

"Say It with Slides"

9.8.96

"Mean Value Theorems: Rolle's Threorems - Part II"

"Human Rights and Indian Constitution: A Discussion - Part II"

"Hurricane Below"

10.8.96

"The Art of Papiermachie"

"Genius of Leonardo"

"Brahmabandhav Upadhaya"

11.8.96

No Telecast

12.8.96

"The Week Ahead"

"The Human Development Paradigm for South Asia - Part II"

"Ground Water Recharge-Part-I"

13.8.96

"Warehouse Categories"

"Developing Inter-Personal Relationship Through Communication-II"

"Living with Health: Communicable Disease"

14.8.96

"Aquatic Weeds and Control"

"Material Testing - Part I"

"Juvenile Delinquent Psychology"

Hindi Telecast
प्रातः 6.00 से 6.30 बजे तक

2.8.96

"कबीर वाणी भाग - I"

"कबीर की कविताई"

5.8.96

1. "पॉन्डस आफ प्लैन्टी"

2. "बुनियादी शिक्षा"

7.8.96

1. "होल्कर छतरी वास्तुकला, भाग - I"

2. "कशीदा"

9.8.96

"कबीर वाणी भाग - II"

"पोलियो के खिलाफ जिहाद"

12.8.96

"अवकर्षित परिस्थितिक तन्त्र भाग - I"

14.8.96

"होल्कर छतरी वास्तुकला, भाग - II"

"छात्रों के लिये प्रसारण माध्यम"

News from Abroad

Women's Summit '96

Women college and university presidents, rectors, and chancellors from around the world, who met at the American Council of Education's (ACE) third Internation Women Presidents' Summit held recently at Mills College in Oakland, CA, committed to taking steps to improve the conditions of women worldwide. Organised by ACE's Office of Women in Higher education (OWHE), the meet was attended by more than 135 women presidents from institutions across the United States and from several nations, including Egypt, Brazil, Japan, Croatia, Chile, and India. The summit focused on increasing women's voices and leadership on critical social and economic issues.

The summit was "a conference of commitments," said OWHE Director Donna Shavlik. "Although many colleges and universities have demonstrated progress in becoming more responsive to the values, ideas, beliefs, talents, hopes, dreams, and visions of women, there is still much more work to be done."

Summit participants reviewed and revised a draft document that sets forth an action agenda for higher education. The paper is based on the goals set forth in both the "Platform for Action", which emanated from the 1995 United Nations Fourth World Conference on Women in Beijing, and "A Blueprint for Leadership: How Women College and University Presidents Can Shape the Future", a report from an earlier summit.

The challenge for women leaders today and in the future, said Angela Glover Blackwell, Vice President of the Rockefeller Foundation, was to remain committed to the democratic principles of "equity, fairness, and values." During the opening plenary session, Blackwell cautioned that "our sense of community is being challenged by increasing poverty and economic insecurity, and by changing demographics, values, and international circumstances." She urged participants to use their leadership abilities to solve society's problems by finding

common ground, building community, producing consensus, dealing with complexities, and looking at the world holistically.

The key to addressing the global and national issues highlighted in the "Platform for Action" and "A Blueprint for Leadership" lies with moving from a broad discussion to taking specific actions on campus to help women become financially independent — a key goal in both documents, Shirley S. Chater, commissioner of the U.S. Social Security Administration and former president of Texas Woman's University said during a panel discussion.

"Recognize and meet the child care needs of the huge population of single mothers who are returning to your campuses to get their degrees; help first generation college students get into school and complete their degrees; and fight federal cuts in financial aid and social services," Chater advised.

Panelist Shirley Lewis, Paine College (GA) president, agreed it is "imperative that our voices and power be recognized and put to work on policy and politics." She urged women presidents to accept their leadership role, and said that in doing so, they must "commit to doing the writing and speaking; collaborate with males who want to work with you; globalize your curriculum; and work on the environment."

In addition, panelist Martha Romero, President of the College of the Siskiyous (CA), suggested that participants focus on that which was within their "sphere of influence." They can influence hiring decisions and commit to advancing women, particularly in upper-level positions; shape the curriculum so that the learning environment is favourable for women's learning styles; and combat the rise of inappropriate behaviour toward women presidents and insist on being treated professionally.

Affirmative action was another issue summit participants agreed needed to be addressed on their campuses. Piedad Robertson, President of Santa Monica College (CA) related the frustration felt by many California presidents because colleagues from around the country have not stepped forward to defend affirmative action or help frame the debate.

To keep from "burning out" with all this activity and the daily duties of running a college, presidents should take time for themselves to "rekindle their creative spirit," Judith Sturnick, president of the Sturnick Group consulting firm and former president of Keene State College (NH) and the University of Maine at Farmington, urged during a plenary session.

The Summit also stressed the need of expanding an international network of women to work together to empower and improve the living conditions of women around the globe.

Formed last year prior to the United Nations conference on women in Beijing, the International Network of Women College and University Presidents, rectors, and Vice Chancellors seeks to connect women presidents around the world. Janet Holmgren, president of Mills College and one of the network's 15 founders, said during a plenary session that the idea behind the network was to encourage presidents to speak out and take a more active role on behalf of women in their communities and on the international level. In addition, the network will promote leadership on women's issues.

To keep the network moving forward, Gloria Scott, president of Bennett College (NC), said that network participants must assume responsibility for connecting with others. "Using technology such as the internet, e-mail, and faxing to communicate with your colleagues on a regular basis...[and] using institutional mechanisms to take us internally among women" would help build and ensure the success of the network, Scott said.

One way to solidify the network, said Kuniko Tanioka, president of Chukyo Women's University in Japan, would be to create a steering committee to be administered by ACE's Office of Women in Higher Education, which organized the summit. Participants agreed that a committee could explore ways to connect more women electronically and plan future meetings of network participants.

Networking should not be limited to the academic world, said Sherry Penney, chancellor of the University of Massachusetts, Boston. Solidifying relationships with women leaders in the corpo-

rate world, establishing links with women trustees, connecting with women reporters and editors, and inviting women community leaders and public officials to campus could be very beneficial, she said.

Creating networks among women and organizing committees were key to implementing the goals of the action agenda adopted at the 1995 United Nation Fourth World Conference on Women held in Beijing, China, agreed participants during the closing plenary session. "Transforming the vision of Beijing to reality [means] getting beyond perceived obstacles such as lack of money or time," said Linda Tarr-Whalen, U.S. Representative to the United Nations Commission on the Status of Women. She challenged summit participants to use the network to help plan activities on campuses to commemorate the August anniversary of the Beijing conference, and to work with the campus community to register students to vote in the upcoming presidential election.

Conferences such as this summit and concrete activities such as the international network would help "ensure that the goals of Beijing are realized collectively and individually," said First Lady Hillary Rodham Clinton in a videotaped message to meeting participants.

Annual Festival of Science

The British Association's Annual Festival of Science is the longest running event of its kind, held at universities across the UK

since 1831. The 1996 Festival will take place from 7 to 13 September at the University of Birmingham.

The Festival will provide an opportunity to explore science, engineering and technology with leading scientists from around the world presenting the newest developments in their fields. The packed programme of events will also include exihibitions showing the applications of science and technology in the world around us, a series of hands-on activities for families and young people, lunchtime and evening public lectures by prominent speakers, visits and field trips to local areas of scientific interest, and debates on a broad range of ethical and social issues.

The hundreds of different talks and debates will cover a wide range of scientific concerns. In the past, the Festival has been the venue of many scientific discussions and controversies. In 1860 it was the setting for the famous debate between Bishop Wilberforce and Thomas Huxley on science and religion, and in 1894 Sir Oliver Lodge demonstrated the first wireless transmission. What will make history in 1996?

For more details, write to the Major Events Department, British Association, 23 Saville Row, London W1X2NB, UK.

ECSITE Annual Conference

The 1996 ECSiTE Conference and Annual General Meeting will be held from 28 to 29 November in Paris. The conference is hosted by the Cite des Sciences et de l'Industrie, at La Villette. The conference theme is *new educational technologies: perspectives and political choices*. The programme aims to identify the trends, constraints and opportunities shaping the development of new educational technologies in Europe.

The conference programme will focus on (i) the educational potential and socio-cultural implications of new educational technologies, and their role in informal learning; (ii) the economic constraints limiting development of new technologies in terms of employment and training; and (iii) the role of policy makers, and appropriate funding, to facilitate or accelerate development.

Participants at the conference will be able to share their practical experience as developers and users of new educational technologies, and compare the way their visitors use these new 'tools for knowledge'.

Further information may be had from Georgette Rattatort, Cite des Sciences et de l'Industrie, La Villette, Paris, France.

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BOOK REVIEW

A Prism to Higher Education

A. A. Sinha*

Ours is a very complex and confusing social matrix and we cannot afford to neglect education including the higher education in India. The book under review has not only diachronic but also contextual relevance. The author advocates a total "overhauling of the system of education in India" including that of the higher education. Kapur's mathematical background has helped in the brevity and systematisation of the causes that have led to the devaluation of higher education in our country, and the author bases his assumptions and conclusions mainly on his rich experiences as an educationist and administrator. In totality the book emphasises the need "to value scholarship and devalue power", a proposition that sounds presumptuous in view of the politically surcharged climate which is bound to resist the growth of any such tendencies.

The book has 36 essays as well as an appendix at the end. These are divided into eight sections from A to H although the thematic classification is not very rigidly adhered to.

One of the salient features of the book is the air of informality that breathes through every page of the book and very often the

*Head, Department of English,
St. Anthony's College,
Shillong-793 001.

writer remains both polemical and dialectical.

There is a distinct clarity of thought and lucidity of expression which is bound to make the book very popular for its easy comprehensibility. There is the preface in which Kapur provides a glimpse of the book and asserts that it is the outcome of his "thinking and interaction with others during the last four years on the problems of higher education in India and abroad". First the author adumbrates the basic issues associated with higher education, and then offers his valuable suggestions which are buttressed by adequate data and his experiences.

In the opinion of the author the present pathetic and disturbing scenario is on account of the cosmetic treatment approach that has always overlooked the deeper and decrepit maladies affecting higher education in India. Unless there is an ontological analysis of the entire gamut of higher education, any solution suggested is bound to be ineffective and infructuous, if not esoteric. His deep dedication has lent an admirable transparency to his vision of higher education. The idealation of higher education as reflected in the book is commendable, and his suggestions and formulations are indeed exoteric. The author insists upon following the model that embraces the principles of liberalisation, globa-

lisation, openness, trust and mutual accountability. Strangely enough, most of the references are from the author's own books, articles and speeches which eventually hinder the book from becoming into a kind of monograph. In fact this self-referentiality could have been avoided by the writer for these narrow down the range of acceptability, and thwart the process of universalisation.

It would be quite congruent to discuss in brief the main features of each of the sections of the book.

Section A has four essays which underscore *the necessity of restructuring the system of higher education in India.* The author dispels certain clouds of misgivings which generally tend to rise whenever there is a concerted attempt at adopting certain radical reformation in the field of education.

Section B has five essays all centering on the *basic objectives rather goals of higher education* The seventh essay under Section B captioned "What is a University?" deserves special plaudits for here the ideas and opinions regarding the meaning, nature and function of a university by great educationists and wise politicians are compiled. Some of the luminaries who figure in this essay are stalwarts like M.C. Chagla, G S. Pathak, D.S. Kothari, V.V. John, Jawaharlal Nehru, C.D. Deshmukh and V.K. Gokak.

Section C has five essays dealing with the theme of *excellence in teaching*. While the first essay discusses items like motivation, measurement and assessment of excellence in teaching other essays take into account various

other dimensions, and the last of course looks at the causes and cures for low morale of teachers in higher education.

Again Section D has essays suggesting ways and means by which *the professional growth of teachers* can be ensured. There is also a cogent analysis of the recommendations of the Rammurthy Committee. The author exposes the Ph.D racket in India and suggests a stricter control over the system so as to plug the loopholes in order to raise the low quality of Ph.D theses. The importance of the Academic Staff College is reasserted, although the unsatisfactory functioning of the Academic Staff Colleges could have been probed, causes analysed by the writer and suggestions for making these institutions vibrant and effective would have been certainly in consonance with the theme.

Excellence in learning is attempted at in the essays under Section E. The rapid expansion of knowledge makes it imperative for the people to update themselves with the latest trends which is possible only through a dynamic system of education that offers continuous learning.

Section F deals with another important dimension of higher education that is, *Excellence in Management*. Vital questions like fees, criteria for accreditation, autonomy are discussed. The author's experiences as vice-chancellor also find a place in this section which help in the reinforcement of his main contentions. The concept of autonomy is discussed, and need for more autonomous colleges has been clearly spelled out.

As one goes through the book sometimes one gets an impression of perceptible incoherency of ideas, perhaps due to the author's

ambitious plan of bringing in all aspects of higher education in India within such a limited frame. The essay entitled "An Operations Research Approach to Educational Planning" successfully highlights the various constraints like financial, manpower, political and social under which educational administrators have to work, yet the author remains merely a purveyor. Even the generous use of technical and professional terms like linear programming, Stochastic programming in some of the essays cut no ice for these stand as peripheral embellishment of scholastic propositions.

Coming back to Section G, one is impressed by the frankness with which the author touches upon the questions *of scientific values, science education and scientific research*. He laments at the rapid degradation of the scientific education in India, and is convinced that these are not entirely due to financial constraints or lack of talent rather due to the erosion of scientific values, education and research.

Although the entire book is deeply embedded in the contextual relevance, yet at times it transcends, particularly while dealing with the philosophical foundations, and acquires a touch of universality. Kapur's analytical approach, and his ratiocinative style have enabled him to reduce these complex problems of higher education virtually to an algebraic simple equation.

Section H touches upon some *myths about higher education* which must be "exploded before we can take steps to revitalise the system". There is the reference to the decision of the Supreme Court, that higher education cannot become a fundamental right. These educational institutions need to

become self-reliant, economically viable as is being done in the western countries.

The need for a continuous internal assessment is also emphasised, and the system of Teacher's evaluation need to be introduced. But the big question that remains unanswered is the feasibility of the proposal. It demands integrity, honesty and sincerity for its effective implementation. Granting autonomy to more colleges has also been forcefully put across. But will it lead to the desired goals? Despite the laudable and sincere concern of the writer, the book lacks a centrality of purpose, for the author swivels too often in his zeal of focusing all the aspects of the problems relating to the higher education in India. Consequently the essays fail to become sequential in nature. At times even the language betrays a lustreless prose which makes a serious dent on the interest of the readers.

The appendix comprises names of the books and articles written by the author on higher education indicative of his wide scholarship. Had the author provided references from a wider spectrum, the book could have been elevated from a personal document to a work of high order. Yet the passion and the missionary zeal with which Kapur discusses the questions of quality education in India is commendable and his assertion that "Educationists should lead the society and follow the correct path" is significant and most welcome. The goal as visualised by the author is no doubt idealistic and somewhat chimerical, yet it remains one step forward in the right direction. Indeed the book is a prism through which we look at and relish the various shades of Kapur's perception of the educational system in India.

EDUCATION NEWS INDEX

A list of select articles and editorials on education from newspapers received in the
AIU Library during June 1996

Hindustan Times 19.6.96

Gupta, Y P. Science : Where mediocrity is excellence. The Hindu 25.6.96.

Parthasarathy, R. Developing the heritage of science. The Hindu 25.6.96.

VOCATIONAL EDUCATION

ALL YOU want to know about nursing (Editorial). Deccan Chronicle 19.6.96.

Anand, Navneet. A healthy profession : Medical education. Indian Express 14.6.96.

—————————. Handbook to success. Indian Express 8.6.96.

Barooah, Tilottama. Training for the future. The Assam Tribune 9.6.96.

Bhandari, Meena. Vocation time Indian Express 8.6 96

Chadha, Sushma More than extracting a tooth. The Pioneer 18 6.96.

DEMANDING PROFESSION (Editorail). The Hindustan Times 11 6 96.

FASHION INDUSTRY (Editorial). The Pioneer 24.6.96.

Gupta, Punam. Start with preparation for MBA. The Times of India 26 6.96.

Harsh Vardhan, Deepika Change in B Ed course after 30 years. The Times of India 26.6 96.

Jose, Raphel. Fashion industry The Pioneer 18.6.96

MANAGING COMPANY affairs (Editorial). The Pioneer 18.6.96.

MEANINGFUL LEARNING (Editorial) Deccan Herald 4 6.96

MEDICAL COLLEGES in the country (Editorial). Deccan Chronicle 12 6 96

MEDICAL COLLEGES in the country (Editorial). Deccan Chronicle 5 6 96

MEDICAL EDUCATION (Editorial). Patriot 1.6.96.

MEDICINE AND dental (Editorial) Deccan Chronicle 5.6.96

Nagaraj, Sudha. Flourishing under tall claims? The Pioneer 29.6.96.

Ravikanth Reddy, R. Law colleges : Blindfolding students. Deccan Chronicle 9.6.96.

SELLING A dream (Editorial). Indian Express 15.6.96

Selvarajan, S Setting on the right course Deccan Herald 17.6.96

Soni, Sharad K. The way to corporate nirvana. The Statesman 15.6.96

Srivastava, Tavishi. Natural law of management The Pioneer 26.6.96.

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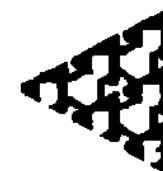
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